A 1447 28 2.

File No. 413

19 . 1928

Collection No. —

Cen 39/7/27.

Mysore Residency.

Pros. Serial Nos. 78 — 99.

Subject.

Bangalore water Supply

(Nittagondanahalli Scheme sanction)

Previous References.	Later References.
	772/34

S.N. 78 Memo. No.D.2045-A/29, dated the 7th August, 1929, from the Govt. of India, For. & Pol. Deptt.

(13) Please see Secretary's note in sub-para 3 of para 114 of notes ante in regard to the figure of Rs. 1¼ lakhs estimated by the Municipal Commission in S.N. 66.

31.

(13-a) The figures for the thousand gallons of water referred to in para 8 of the P.U.C. have been apparently furnished to the Govt. of India by the Military authorities.

It is probably because the Military authorities consume actually much less water than what they are entitled to that it is said that they have been paying 46.52 annas per thousand gallons of water.

(12) It is not known how the cost of a thousand gallons of water under the "T" scheme has been computed at 9.31 annas.

(1-4) With reference to the statement in para 5 of P.U.C. that the Municipality charge 8 annas per thousand gallons, please see Appendix No. 25 in the Bangalore Municipal Bye-Laws . They charge 8 annas for every thousand gallons of water for purposes of trade.

2/X

Two drafts submitted for approval.

From para (12a).

C.K. Venkatarama Iyer. 17/8/29

Secretary. 17/8/29

File was with Resident but was obtained from him to deal with here. WW 19/8

(127) Resident does not seem to have seen note (130).

2. Note (132). Presumably the figure is due to a misplaced decimal point and shd be 4.652. It seems hardly credible that, if the Military Authorities had been paying ten times as much as the civil consumer, we shd not have heard all about it. Can we not make a rough check with the information at our disposal?

19.8.29

Para 135 of notes.

(126)

Vide paras 1 & 2. (WW)

Please see paras 1 and 6 of Lt. Col. Mahon's Report on the Water Supply of Bangalore, dated the 4th August, 1923. The total population of the C & M Station of Bangalore is 1,25,000 (according to the census figures of 1921.) The military population of the Station is 6,000.

(125) The proportion of the populations of the military to the civil is as 1 to 20, and the Military Authorities have been paying one-third of the total cost of water consumed in the Station, although their actual consumption of water is much less than that of the civil population. The Municipality pay two-thirds of the cost of water for the civil population which, is 20. times as much as the military. Instead of the proportionate share of the cost being 1/20 th, the Military have been actually paying ½ of what the Municipality pay. KAS

This is probably the explanation for the statement that the Military have been paying 10 times as much as the Civil

Chelmsford
20/8/29

Secretary (12/8)

The Govt. of India use lamentable English nowadays, but I have not altered the draft based on their memorandum, except last 2 paras as it seems advisable to follow their wording rather closely in a matter like this.

Drafts may issue ?

2. It is for consideration whether we shd tell the Press that the Govt. of India have accepted the Scheme.

Resdt. 20.8.29

(13/8)

Drafts may issue.

We may tell the Press that the G. of I have expressed their readiness to accept the proposals of the S. of State.

22/8/29.

(14-C) Secretary's note.

" Please put up draft notice to Press about "T" Scheme .

Letters are now signed to Mysore Govt, etc.

(Ind.) G.L.

24/8

Draft notice submitted.

C.A. Srinivasa Iyer
24/8/27

24/8 As amended
GL
26-8-27

Secretary

S.N. 81 Letter No. Pol. 210, dated the 17th August, 1929, from the Govt. of Mysore.

(141)

The P.U.C. was submitted in advance for the information of the Secretary and the Resident as the file was under disposal then.

S.N. 79 (4/DC)

The Govt. of Mysore have been informed that the Govt. of India have accepted their proposals and agree to participate in the "T" Scheme.

No action seems to be necessary on the P.U.C.

Secretary

S.N. 82 Issued No. 7314, dated the 26th August, 1929.

(142)

The D.C. rang me up this morning about the Water Scheme & had not apparently seen our letter before he saw the newspaper announcement. I told him that I had signed a letter to Distr. H.Q. (CRE) but since enquiries. He I rang up later & confirmed my statement & found that the thought that the copy had been sent to the C.R.E. as member of the Commission. It has actually gone in continuation of Marine Covers. Issue D.O. & then Resident should see.

28/8/29

S.N. 83 | Issued D.O. No. 7377, dated the 28th August, 1929.

Please see para 142 of office notes ante.

Resident. | Submitted to Resident for information.

C.A. Venkatachariar
28/8/29

On what date & at what time was our letter despatched & received by the C.R.E.?

29/8/29

28/8/29

The letter addressed to the Commanding Royal Engineer was sent from Office at about 1.p.m. on Saturday the 24th August, 1929, with cycle-orderly Ranga Rao, and he says that it was delivered by 1.30.pm. the same day to a European Lance Corporal.

The delivery book is submitted herewith.

A. Latif Khan
Despatcher.
30-8-1929.

I checked the delivery book before my second telephone conversation with the C.R.E.

30.8.29

Secretary

(141) I have spoken to the General about this: Col Kenton, C.R.E. was away on Saturday & the letter was given to Major Capillon, who did not send it up to the Gen. at once. That being the matter was considered closed.

But we had better send a copy of our letter (to the Bn & C.R.E. Skin Corps) & the Headquarters (R.M.O.: transport) for info.

9/31/8

31/8/29.

S.N. 86

Letter No. 1838-M/E.4, dated the 12th September, 1929, from the Commander, Royal Engineers, Madras District, to the President, Municipal Commission, C & M Station, Bangalo

(148) The C.R.E., Madras District, has forwarded for information a copy of his letter to the President, Municipal Commission. Submitted.

Gopikanta Iyer.
16/9/29

16/9/29

Secretary

For information.

(149) If I had been in their place I think that I should have emphasized the military nature of the Station and made a point of the growth of the civil population's effect on the situation - some day they may find themselves asked to hand over control.

24.9.29

Thanks.

(150) We may now ask the President, M.C. for an early report on the points raised in this letter.

27/9

27/9/29.

S.N. 88 Memo.No.D.1815-R/29, dated the 20th September, 1929, from the Govt. of India, For. & Pol. Dept.

The information is available with the Govt. of India who have considered the Thippogondanahalli scheme and accepted in S.N. 78 the proposal of the Mysore Govt.

The extract from the 'Pioneer' forwarded with the P.U.C is based upon paras 22, 24, 26 and 31 of the Report of the Water Supply Committee appointed by the Mysore Govt. But the statements made therein are not quite correct.

In para 26 it is stated that a full reservoir with a capacity of 2,089 millin cft. will last for 3¼ years at 6 million gallons a day without any inflow at all.

Whereas the extract says that it is claimed that water onde impounded fully would last five years without any inflow at all.

A supply of 25 gallons per day per head is said to be guaranteed, while para 3 of the report refers only to 20 gallons per day per head.

A credit of 5 lakhs of Ruppes has to be given to the total cost of the scheme estimated at about Rs. 34 lakhs There is nothing to support the statement made, at the end of the extract that such a scheme was considered before the rendition of Mysore. This is perhaps based upon what is stated in para 22 of the report.

It seems that the information noted above may be communic to the Govt. of India in reply to the P.U.C.

Submitted for favour of orders.

With reference to the Resident's note in para 150 of notes ante, a draft to the President, Municipal Commissinm, is submitted.

Secretary

30/9/29

1. Issue draft to P.M.C.
2. Then submit to Resident note draft attached

8-10-29

S.N. 87 | Issued No. 8588, dated the 10th October, 1929.

Para 152 of notes.

The draft to the President, Municipal Commission, has issued.
Submitted with the draft.

Resident.

C.R. Srikantia Iyer
16/10/29

11/10.

S.N. 89 | Issued No. 8791, dated the 17th October, 1929.

P.U.C. | Letter No.Gt 22/28, dated the 22nd October, 1929, from the President, Municipal Commission, C & M Station, Bangalore.

Please see S.Nos. 86 and 87.

Further communication may be awaited.

C.R. Srikantia Iyer
24/10/29

P.U.C | Reminder No.D.2045-A, dated the 23rd October, 1929, from the Govt. of India, For. & Pol. Dept.

Please see S.Nos. 78, 80, 86, 87 and 90.

Draft submitted.

C.R. Srikantia Iyer
1/11/29

Issued No. 9296, dated the 4th November, 1929.

S.N.91 Letter No.Gt.22/28, dated the 30th November,1929,from the President, Municipal Commission, C & M Station, Bangalore.

Please see S. Nos. 68,78,80,86,87 and 90. Although the Municipal Commission have not given a detailed reply to S.N. 86, they have stated that if the Military contribution is to be reduced, the only alternative will be for them to request the Govt. of India to ~~increase their grant.~~ make an enhanced grant.

It seems that a copy of P.U.C. and enclosures and also of S.N. 86 may be forwarded to the Govt. of India.

Submitted for orders.

7/12/29

Pl. check figures in P.U.C. S.N.91. Does the calculation show the position ~~correctly~~ now? Pl. check statement about inaccuracy of our figures of cost of water. If incorrect, why did we use the figure 4.52? Have G.I. given any notice of 26.3.28?

13.1.30

Para 157 of notes.

The figures in para 2 of S.N.91 on page 1 have been checked. The calculation shows the position correctly.

The figure 4.52 annas as cost of thousand gallons of water has been mentioned by the Govt. of India in para of S.N.78. It was apparently furnished to the Govt. of India by the Military authorities. In this connection please see para 132 of notes ante.

It is not known how the calculation of that figure was arrived at.

The Municipality have pointed out in para 4 of

S.N.91 how the figure 4.52 is not correct and how the charge should be 6.92 annas for thousand gallons of wate The calculation in their statement has been checked.

A copy of our note of the 28th March, 1928, was not sent to the Govt. of India.

If a copy of S.N.91 is now to be forwarded to the Govt. of India, a copy of that note also will have to be sent to them.

Submitted.

CKSankara Iyer
15/1/30

16/1

I cannot reconcile
~~How are~~ the figures given at the top of p.3 of the P.M.C's letter of the 30th Nov. 1929 ~~to be reconciled~~ with those for receipts under 1924-25 in the statement attached to his letter?

I do not think that we can let the wording of lines 20 and 21 on p. 2 to ~~be~~ pass unnoticed. The Commission said that they had no alternative but to accept the scheme - and see S.N70.

I would suggest that we send a copy of the P.M.C's letter to the Govt. of India saying that it requires examination and that comments will follow.

Then a short précis should be made showing what is now to be done - for example, drawing up the agreement for which we have asked the Mysore Govt. for a draft. And an analysis shd be made of the P.M.C's letter and his figures inthe statement attached to his letter shd be checked.

Personally I do not see why the Military Authorities should be made to pay disproportionately for the growth of the civil population - but there is the difficulty that any break away from the present arrangement would no doubt lead also to demand for civil control.

Readt. 1.2.30

It seems impossible to reconcile these discrepant figures. We should ask P.M.G. to reconcile them.

We can also point out that the statement that the Commrs' acceptance of the scheme was conditional on the G.O.C. sanctioning a special establishment is not correct: there can be no such condition, as has already been pointed out (supra).

We can send the letter to G.O.C. as enclosed: make a precis of the work to be done now.

As to the military contribution: in actual fact the Militia have in the past for many years taken duty on the understanding that they would, if necessary, be settled & take up their full share. If they only have one or two companies they will lose their proportion

2

claim to a ⅓ share will stand in with the civil population on equal terms as to their right to share pro rata in any available supply.

243/30.

The figures given at the top of page 3 of the President, Municipal Commission's letter relate to the demand under water tax made in 1924-25 but the actual collection in that year was shown in the statement. In this connection please see Demand, Collection, Remission and Balance statement of Municipal Revenue given on pages 24 and 25 of the Municipal Administration Report for 1924-25.

The total collection is as follows:-

1) Water tax	.. =	91,131-9-3
2) Collection of excess water charges.	..	11,867-0-0
3) Meter rents.	..	1,738-8-0
		1,04,737-1-3

The figures given in the statement is Rs.1,04,599.

It is not possible to reconcile the difference of Rs.138-1-3. This may possibly be due to refunds.

Two drafts submitted for approval.

T. N. Thangavelu
Dindigul
1-4-1930

Orders slightly amended.
2.4.30

S.N. 92 and 93
Secretary

Issued No. 3242-43, dated the 16th April, 1930.

S.N.96

Letter No. P.W. 3056/11625, dated the 25th March, from the Secretary to the Government of Mysore, Public Wor Department, Bangalore.

A copy of the Mysore Government Order may perhaps be sent to the Government of India, D.A.Q.M.G., Madras Distric and the President, Municipal Commission, for information.

2 Drafts submitted for approval.

T. N. Thangavelu
Subaltern
5-4-1930.

Secretary.

7.4.30

Drafts my views: but...
I wonder whether the Mysore P.W.D will stick to its estimates!

4/5/30

S.N. 98 & 99.

Issued Nos. 3778-9, dated the 7th May, 1930

78/2

S.N. 95
P.W.S.

Letter No. P.W. 3145/12778, dated the 19th April 1930, from the Secretary to the Government of Mysore, Public Works Department.

The file No. 413/1928 relating to water supply was submitted to the Resident on the 7th April, 1930 with a manuscript copy of the Mysore Government order referred to in the P.U.C.

The P.U.C. is submitted for information.

T. N. Thangavelu Mudaliar.
24-4-1930

Secretary.

We may send a copy to P.H.Q. & to the G-G.I.?

25.4.30

Reg.

Approved. Let the separate set may be sent in 2 other copies for the records

25.4.30

S.N. 96.

Issued No. 3487, dated the 28th April, 1930.

From - The Under Secretary to the Government of India
in the Foreign and Political Department,

To - The Hon'ble the Resident in Mysore.

Memorandum No.D.2045-A/29.

Dated Simla, the 7th August 1929.

Bangalore Water Supply.

Reference your express letter No.3425, dated the 18th April 1929. The Government of India are prepared to accept the proposals of the Government of Mysore, as stated in the copy of the proceedings held in the Residency on the 27th November 1928, and as the Municipal Commission are also agreeable, the concurrence of the Government of India and the Municipal Commission to participate in the 'T' scheme may be communicated to the Durbar, and steps may be taken to get a proper agreement drawn up in due course.

2. The question of the division of expenditure under the new scheme between the Municipal and Military authorities still remains unsettled but it is not desirable to delay the progress of the scheme, which is an unavoidable necessity, while this question is being settled. The Government of India note that it is not clear from your letter under reply as to how the expenses in future under the new scheme should be divided between the Municipal and Military Authorities. No details have also been given to support the Municipal Commission's anticipation that an additional annual expenditure for water under the new scheme amounting to Rs.1½ lakhs will be entailed. It is presumed that this estimate is based on the assumption that the Military Authorities will continue to pay one-third of the total cost of water under the new scheme including one-third of the cost of distribution. It has however been suggeste to the Government of India that the present basis of division is no longer equitable.

3. The present arrangement under which the Military Authorities pay one-third of the total cost of the water supply system for the Civil and Military Station is based on an old understanding which was arrived at a time when the military consumption was estimated to be roughly one-third of the actual water supply. This, however, is no longer the position, and it is maintained that the Military Authorities have on several occasions suggested a revision of the present arrangements. On the basis of the figures for 1924-25, and assuming that the military consumption was equal to the maximum allowance per head, the result of the present arrangements has been that the Military Authorities have been paying 46.52 annas per thousand gallons of water as against 4.52 annas per thousand gallons paid by the Municipality. The present arrangements, therefore, result in the Military Department being obliged to pay towards the cost of water consumed by the civil population. Further, it is contended that the proposed new scheme involving further additional expense has been necessitated not by the growth of the military needs but by the growing needs of the civil population, vide paragraph 2 of the Minutes of a Conference held at the Bangalore Residency on the 28th August 1924. It is, therefore, strongly held by the Military authorities that they should not be called upon to bear further additional burden under the new scheme, and it has been urged that the future division of cost between the Municipal and Military Authorities should be on the basis of actual consumption of water.

4. The feasibility of this suggestion from the Municipal point of view has also been considered on the data available here. The tentative conclusion reached is that the suggestion may be practicable for the reason that the cost of thousand gallons of water under the 'T' scheme including distribution, if the present system is maintained, will be

The cost per thousand gallons in some of the other cities of India is indicated in the appended statement.

be 9.31 annas, and this will still be one of the cheapest supplies of water in India.

5. It is understood that the Municipal Authorities are now making a profit over the existing water supply scheme, as on the basis of the 1924-25 figures the actual cost of water per thousand gallons to the Municipality amounted only to 4.52 annas per thousand gallons, while they charge 8 annas per thousand gallons. The usual practice in other places is to charge as low a rate as possible ~~xxx~~ in order to induce people to take a filtered supply and not to use large profits from this supply to pay for other less important measures. It has been suggested that an increase in the rate of only two annas per thousand gallons or thereabouts would be more than sufficient to cover the cost of the new supply. Ten annas per thousand gallons cannot be considered a high rate for pure filtered water. Having regard to the cost of water in other stations and the comparative cheapness of the supply under the proposed scheme, it appears to the Government of India that there may no longer be any justification for continuing the present basis of apportionment of cost between the Municipal and Military Authorities, nor for the payment of a grant-in-aid to the Municipality. The Government of India realize that it may be necessary to instal meters more freely than in the past, but this cannot be advanced as an argument for shifting a burden which should legitimately be borne by the population benefiting from the scheme.

6. The question of re-modelling the present system of distribution will also probably arise if the Municipal Authorities desire to press for the control of the *distribution to the civil population. This point, however,* may be left for future consideration, and it may be possible to arrive at an amicable settlement as regards the division of the cost of remodelling the redistribution if the main question of the division of recurring cost under the new scheme on the basis of actual

actual consumption were agreed to by the Municipal Commission. The Government of India will be glad if you could explain the position to the Commission and obtain if possible their concurrence in the suggestions made above.

Sd. V. Narahari Rao,
Under Secretary to the Government of India.

Attested.

Superintendent,
Foreign and Political Department.

Copy to-Army Department.
Finance Department, with reference to their U.O.I.No.4382-Ex.II, dated 6th August 1929.

STATEMENT.

The following are the costed rates for 1926-27 for pumped water supplies in some of the other station in the Southern Command:-

Station.	Cost per 1,000 gallons
Bolarum (Secunderabad)	14.47 annas.
Gun Rock (Secunderabad)	8.20 annas.
Ahmednagar	8.96 annas.
Kirkee.	10.45 annas.
Jubbulpore, (Ridge)	12.15 annas.

All communications should be addressed to the Secretary to the Resident in Mysore, Bangalore, by designation and not by name.

No. 7230 ENG.
413/1928.

79

FROM

Major G. Loch,
SECRETARY TO THE RESIDENT IN MYSORE.

To The Chief Secretary to the Government of
His Highness the Maharaja of Mysore.

Dated Bangalore, 24th August, *192* 9.

Subject.

Bangalore Water Supply - Thippogondanahalli
S c h e m e.

SIR,

S.N.71 In continuation of my letter No.3544, dated the 22nd April, 1929, I am directed to inform you that the Government of India are prepared to accept the proposals of the Government of Mysore, as stated in the copy of the S.N.59/A proceedings of the Conference held at the Residency on the 27th November, 1928, and to say that the Government of India and the Municipal Commission, Civil and Military Station, Bangalore, agree to participate in the "T" Scheme.

2. The Government of India desire that a formal agreement should be drawn up in due course and I am, therefore, to request that the Hon'ble the Resident may be favoured with a draft agreement for consideration.

I have the honour to be,
Sir,
Your most obedient servant,

o/c

Major.
SECRETARY TO THE RESIDENT.

ASB

No. 7229 ~~Enc.~~
413/1928.

From

Major G. Loch,

SECRETARY TO THE RESIDENT IN MYSORE.

To

The President,
Municipal Commission,
Civil and Military Station,
B a n g a l o r e.

Bangalore, the 24th August, 1929.

Bangalore Water Supply -
Thippagondanahalli Scheme.

Sir,

I am directed to refer to your letter No.Gt.22/28/ S.N.66
235-23, dated the 13th February, 1929, and to inform you that the Government of India are prepared to accept the proposals of the Government of Mysore, as stated in the S.N.59/A
copy of the proceedings of the Conference held at the Residency on the 27th November, 1928, and that the Government of Mysore are being informed that the Government of India and the Municipal Commission agree to participate in the "T" Scheme.

2. The Government of India, however, point out that the question of the division of expenditure under the new scheme between the Municipal and Military authorities still remains unsettled, but that it is not desirable to delay the progress of the scheme, which is an unavoidable necessity, while this question is being settled. They desire to know how the expenses in future under the new scheme should be divided between the Municipal and Military authorities and also to be furnished with detailed information in support of the

Municipal

Municipal Commission's anticipation that an additional annual expenditure amounting to Rs.1,25,000/- for water under the new scheme, will be entailed. They presume that this estimate is based on the assumption that the Military authorities will continue to pay one-third of the total cost of water under the new scheme including one-third of the cost of distribution. It has, however, been suggested to the Government of India that the present basis of division is no longer equitable, having regard to the small and almost fixed numbers of the military population as compared with the large and rapidly growing civil population.

3. The Government of India state that the present arrangement under which the Military authorities pay one-third of the total cost of the water supply system for the Civil and Military Station is based on an old understanding which was reached at a time when the military consumption was estimated to be roughly one-third of the actual water supply. This, however, is no longer the position, and it is maintained that the Military authorities have on several occasions suggested a revision of the present arrangement, and that, on the basis of the figures for 1924-25, and assuming that the military consumption was equal to the maximum allowance per head, the result of the present arrangements has been that the Military authorities have been paying 46.52 annas per thousand gallons of water as against 4.52 annas per thousand gallons paid by the Municipality. The present arrangements, therefore, result in the Military Department being obliged to contribute towards the cost of water consumed by the civil population. Further, it is contended that the proposed new scheme involving further additional expense has been necessitated

not

not by the growth of military needs but by the growing needs of the civil population (vide paragraph 2 of the Minutes of a Conference held at the Residency on the 28th August, 1924). It is, therefore, strongly held by the Military authorities that they should not be called upon to bear a further burden under the new scheme, and it has been urged that the future division of costs between the Municipal and the Military -- authorities should be on the basis of actual consumption of water.

4. The Government of India state that the feasibility of this suggestion has also been considered on the data available with them. The tentative conclusion reached is that the suggestion may be practicable for the reason that the cost of a thousand gallons of water under the "T" scheme including distribution, if the present system is maintained, will be 8.31 annas, and this will still be one of the cheapest supplies of water in India. The cost per thousand gallons in some of the other cities of India is indicated in the enclosed statement.

5. It is understood by the Government of India that the Municipal authorities are now making a profit over the existing water supply scheme, as, on the basis of the 1924-25 figures, the actual cost of water per thousand gallons to the Municipality amounted only to 4.52 annas per thousand gallons, while a charge of 8 annas per thousand gallons is levied. They point out that the usual practice in other places is to charge as low a rate as possible in order to induce people to take a -- filtered supply, and not to use large profits from this supply to pay for other less important measures. It has

been

been suggested to them that an increase in the rate of only two annas per thousand gallons or thereabouts would be more than sufficient to cover the cost of the new supply. They add that 10 annas per thousand gallons cannc be considered a high rate for pure filtered water. Having regard to the cost of water in other stations and the -- comparative cheapness of the supply under the proposed scheme, it appears to the Government of India that there may no longer be any justification for continuing the present basis of apportionment of cost between the Municip and Military authorities, nor for the payment of a grant-i aid to the Municipality. The Government of India realis that it may be necessary to instal meters more freely than the past but they say that this cannot be advanced as an argument for shifting a burden which should legitimately b borne by the population benefiting from the scheme.

6. The Government of India add that the question of re-modelling the present system of distribution will also probably arise if the Municipal authorities desire to press for the control of the distribution to the civil population. This point, however, may be left for consideration after a settlement of the main question of the division of the -- recurring cost has been reached.

7. I am to ask that the views of the Municipal Commission may be placed before the Hon'ble the Resident.

I have the honour to be,
Sir,
Your most obedient servant,

o/c

Major.
SECRETARY TO THE RESIDENT.

Copy forwarded to the Commanding Royal Engineer, Madras District, for information, with reference to his letter No.110-M/202/E.4, dated the 12th July, 1929.

E.G.M. 7.5. (H)

ASD

Urgent
Pol 2/10

No. Pol. 2/0

81

GOVERNMENT OF HIS HIGHNESS THE MAHARAJA OF MYSORE

General and Revenue Secretariat,

Dated, Bangalore, 17th August 1929.
1914

From

R. RANGA RAO, Esq., B. A., B. L.,
Offg. Chief Secretary to the Government of His Highness the Maharaja of Mysore.

To Major G.Loch, I.A.,

Secretary to the Hon'ble the Resident in Mysore,
Bangalore.

RESIDENT'S OFFICE
BANGALORE
Register No. 8119
Date of Receipt 21/8/29
File No. 213
28

BANGALORE WATER SUPPLY.

Sir,

S.N.47. Reg 26.

I am directed to invite kind reference to this office No.Political 398 dated the 2nd October 1928 and subsequent reminder dated the 21st March 1929, regarding certain proposals for improving the Bangalore Water Supply.

S.N.668. V/2

2. It has been brought to the notice of Government that the present depth of storage in the Hessaraghatta Lake is 15 feet 9 inches and in the Yelemallappa Chetty Tank it is 8 feet 3½ inches. The total quantity of water available in both the tanks is calculated to be 1650 Million Gallons; and allowing for evaporation losses, the storage is expected to last for 10 months only, that is, till about the 20th March 1930, without any receipts into both tanks.

3. On account of the uncertainty, and the very poor receipts into the Hessaraghatta Lake, it has become necessary to supplement this supply from the Yelemallappa Chetty Tank, year by year, and judging from the conditions of the past six years, it is certain that the Hessaraghatta Lake by itself will not prove a reliable source of water supply to Bangalore; and the supplementary storage of the Yelemallappa Chetty Tank will have to be kept on indefinitely until more permanent arrangements are made. Even with this supplemental source, the combined storage will last only for 10 months without replenish-

ment

replenishment. The seasonal conditions are disappointing, receipts into the Lake are poor, and the Bangalore Water Supply is at present in a very precarious position. The Yelemallappa Chetty Tank Scheme was taken up in the year 1926 to serve only for that year, and as such the pumps and the pipes required were utilised from the old stock available. The present situation is neither safe nor satisfactory, as the one pump at the Yelemallappa Chetty Tank has to work continuously; and the pipe line consisting of old pipes is giving trouble on account of frequent leaks.

4. It is apprehended that both the pumps and the pipes may break down any moment interfering seriously with the supply of water to Bangalore. Further, the ryots owning lands below the tank are put to much hardship and loss, on account of the reservation of the tank from year to year. Nevertheless, the present arrangement must be continued till the new scheme comes into effect.

5. In view of the above circumstances, the Government of Mysore are of opinion that in order to have an assured water supply to Bangalore, it is imperative that the new scheme should be adopted as soon as possible.

6. I am directed, therefore, to request you to kindly move the Hon'ble Resident to use his good offices, and obtain the approval of the Government of India to the proposals made in the letter referred to above.

I have the honour to be,
Sir,
Your most obedient servant,

R. Rangachar

Offg. Chief Secretary to Government.

HKS.

82

No. 7314

Office of the Resident in Mysore,
Bangalore, the 26th August, 1940.

N O T I C E.

The Government of India have accepted the proposals of the Government of Mysore to construct a dam across the Arkavathi river at Thippagondanahalli, near the 20th mile-stone of the Bangalore—Magadi road, in order to provide for a more certain and larger supply of water to the City and the Civil and Military Station of Bangalore.

Major.
SECRETARY TO THE RESIDENT.

To

The Editor, "Daily Post", Ltd., Bangalore, with compliments.
The Correspondent, "The Madras Mail", Civil and Military Station, Bangalore, with compliments.
The Correspondent, "The Hindu", Bangalore, with compliments.
The Correspondent, "The Parliament", Basavangudi, Bangalore City, with compliments.
The Correspondent, "The Statesman", Vallauvanna, Bangalore City, with compliments.
The Agent, "The Associated Press of India", 11, Clarkepett C, Civil and Military Station, Bangalore, with compliments.

D.O.No. 7377/Genl

THE MYSORE RESIDENCY,
BANGALORE,

ated, the 28th August, 1929.

My Dear General,

With reference to our conversation on the telephone this morning (28th August) I am desired to enclose a spare copy of my letter No.7229, dated the 24th August, 1929, to the President, Municipal Commission, Civil and Military Station, Bangalore, about the 'T' Scheme.

S.N. 81. (4/7)

A copy was sent to the Commanding Royal Engineer, Madras District, in continuation of the previous official orrespondence on the subject. I am sorry that you did ot see it before you saw the newspaper statement, but the letter was sent on the 24th August and the communiqué was not issued till late on the 26th August, so that the letter on the subject should reach you and the Mysore Government before the news appeared in the papers.

S.N. 82. (5/82)

Yours Sincerely.

GL

Major-General A.L.Tarver, C.B., D.S.O.
General Officer Commanding,
Madras District,
Bangalore.

CKS.

All communications should be addressed to the Secretary to the Resident in Mysore, Bangalore, by designation and not by name.

No. 7504 Enc. 1

84

413/1928.

From

Major G. Loch,
SECRETARY to the RESIDENT in MYSORE.

To

The Deputy Assistant Quarter-Master-General,
Headquarters, Madras District,
B a n g a l o r e.

Dated Bangalore, ~~31st August~~ 2nd September, *192* 9.

~~Subject~~

Sir,

I am directed to refer to the Hon'ble the Resident's conversation with the General Officer Commanding, Madras District, on the 31st August, 1929, and to enclose for your information, a copy of my letter No.7229/413-1928, dated the 24th August, 1929, to the President, Municipal Commission, Civil and Military Station, Bangalore.

I have the honour to be,
Sir,
Your most obedient servant,

Major.
SECRETARY TO THE RESIDENT.
ans

D/O No.13872/Q. 65

HEADQUARTERS, MADRAS DISTRICT,
BANGALORE,
S. INDIA.
29th August, 1929.

My dear Loch

I am directed by Major-General A.L.Tarver, C.B. C.I.E., D.S.O., to acknowledge with thanks receipt of your D.O. No.7377, dated the 28th August, 1929, which forwarded a spare copy of your letter No.7229, dated 21st August, 1929, regarding the Thippagondanahalli Water Supply Scheme.

No. 8434
Date 29/8/29.
File No. 413/28

Yours sincerely,

J.V. Bancroft

To
Major G.Loch,
Secy.to the Hon'ble
the Resident in Mysore,
Bangalore.

May be filed.
CKSrikantaIyer
2/9/29

Water Supplies.

No.1838-M/ 52 /E.4

Bangalore, 12th September 1929.

From

The Commander,
Royal Engineers, Madras District.

To

The President,
Municipal Commission,
C.&.M. Station, Bangalore.

Bangalore Water Supply - Thippagondanahalli Scheme.

Sir,

With reference to your letter No. [illegible] dated August 24th 1929 from the Secretary to the Resident in Mysore, I have the honour to state that I consider it essential from the commencement of supply of water from Thippagondanahalli that the present agreement, which refers only to the existing Hesserghatta and Yellamalappa Supply system, whereby the Civil pay two thirds and the Military one third of the total cost of supply, should be revised.

2. With the existing distribution system it is not possible to measure the actual consumption of either party, but on any basis of estimating, e.g. by population, by number of connections, or by deduction from the readings of such meters as xist, it is clear that the garrison does not onsume nearly one third of the water supplied o the Civil and Military Station.

3. To be able to measure the actual consumption by the Civil and Military population respectively it will be necessary either (a) to remodel the existing distribution system so as

as entirely to separate the supply to civil buildings from that to military buildings or (b) to instal local meters on all connections.

4. I consider that (a) above will be a far simpler and more satisfactory method in the long run. It will leave each party a free hand in subsequent developments to its own distribution, whereas with a joint distribution system, liable to constant extension, all extensions will require joint approval; also the monthly reading of a very large number of meters, with the possible dissatisfaction which such readings frequently entail, will be necessary.

Under (a) Military Officers occupying civil buildings will, of course, pay to the Commission the same water rates or charges as civilians, and will not, as at present, be exempted from payment.

5. With separate distribution systems the civil and military consumption respectively could be measured at the point where such systems connect with the High Ground Reservoir, each party paying for the amount actually measured by his meter. Wastage in the reservoir itself due to seepage and evaporation, and also any deficit in consumption below the rate of 2,000,000 gallons a day would be paid for by the civil and military in proportion to their respective metered consumptions.

6. As funds for the remodelling of the existing distribution, to provide separate Civil and Military systems will not be available until credit for the military share in Hesserghatta is receiv which will be after the Thippagondanahalli supply

be gone into by the Municipal Engineer and the Garrison Engineer with a view to arriving at a more equitable division of payment than that of two thirds and one third existing at present.

It is not anticipated that the present garrisons monthly consumption will ever exceed a rate of 2,00,000 gallons a day which is only 1/10 of the guaranteed minimum consumption of the Civil and Military Station as a whole.

7. I shall be glad if you will let me have the views of the Municipal Commission on the above points.

I have the honour to be,

Sir,

Your obedient servant,

A. H. B. Papillon.

Major, R.E.

For C.R.E., Madras District.

Copy to:- ✓

The Secretary to the Resident in Mysore, Bangalore

"Q" Madras District reference Southern Command letter No.5689/83/E.4, dated 27-8-1929.

The G.E. Bangalore.

A. H. B. Papillon

Major, R.E.,

For C.R.E., Madras District.

T.M.E.11.

67

DEPARTMENT. File No.

BRANCH. Serial No.

Draft Letter / Memorandum / Telegram

Class for telegrams — Ordinary / Express / Urgent* / Priority / Clear Line† — *Only for Foreign Telegrams. †Not for Foreign Telegrams.

To be issued on | Issued on

1st Reminder

2nd Reminder

3rd Reminder

Heading :

Case or Diary No.

If post copy of telegram required

Date of despatch of above

List of enclosures

(Code word for telegrams.)

+S.M. 86. (B)

No. 8588 Dated 10. 10. 1929

From

To The Secretary to the Resident.

The President,
Municipal commission,
Civil and Military Station,
Bangalore.

BANGALORE WATER SUPPLY-THIPPOGANDAN HALLI SCHEME.

Sir,

I am directed to refer to letter No.1838-M/52/E.4, dated the 12th September, 1929, from the Commander, Royal Engineers, Madras District, to your address, and to request that an early report may be furnished to this Residency on the points raised in the letter.

I have etc.,

(sd) G. Loch Major

Secretary to the Resident

9/10/29

C.K.S. 30/9/29

S. 5.

MGIPC—FP—437DCF—S&P—(G-1478)—29-1-27—15,000 Pads.

From - The Deputy Secretary to the Government of India
in the Foreign and Political Department,

To - The Hon'ble the Resident in Mysore.

Memorandum No.D.1815-R/29.

Dated Simla, the 20th September 1929.

Proposal to construct a dam across the Arkavati river at Thippogondahalli, 20 miles off Bangalore.

Reference enclosed extract from the 'Pioneer', dated the 1st September 1929. The Government of India do not appear to have any information on the subject, and would be glad to know such details as may be available in your office.

Sd/- H. Wilberforce Bell,

Deputy Secretary to the Government of India.

Attested.

J.K. Rodgers.

Superintendent,

~~Foreign and Political Department.~~

Extract from the 'Pioneer', dated the 1st September 1929.

'sore Dam Project.

Government of India accepts proposal.

Bangalore, August 27

It is understood that the Government of India has accepted the Mysore Government's proposal to construct a dam across the Arkavati river at Thippogondahalli, 20 miles off Bangalore, with a view to provide more certain and a larger supply of water both to the city and the civil and military station.

A special committee of engineers with Sir Visvesveraya as chairman, after an exhaustive 14 months' inquiry, recommended that the project, which they estimated would cost Rs.34 lakhs, should be situated three furlongs above the junction of the two rivers, Arkavati and Kumudwati. The river here runs in a deep gorge with rocky hills on either side rendering possible, according to the engineers, the construction of a deep tank capable of impounding a large volume and reducing the loss by evaporation to a minimum.

FIVE YEARS' SUPPLY.

With an assumed 17 inches' rainfall from a hilly catchment area of 73 square miles, it is claimed that water once impounded fully ~~would~~ would last five years at a stretch without any inflow, guaranteeing a supply of 25 gallons per day per head. The construction of the reservoir, it is further claimed, would not submerge much cultivation land reducing the compensation ~~xxx~~ charges to the absolute minimum.

Such a scheme was being considered before the rendition of Mysore by the British to the present house.

True extract.

J K Rodgers

DEPARTMENT. File No.

BRANCH. Serial No.

Draft Letter / Memorandum / Telegram

Class for telegrams — Ordinary / Express / Urgent* / Priority / Clear Line† — *Only for Foreign Telegrams. †Not for Foreign Telegrams.

	To be issued on	Issued on
1st Reminder		
2nd Reminder		
3rd Reminder		

Heading :

Case or Diary No.

If post copy of telegram required

Date of despatch of above

List of enclosures

(Code word for telegrams.)

No. 879 Ent Dated 17-10-1929

From

The Hon'ble the Resident in Mysore.

To

The Political Secretary to the Government of India, For. and Political Department

Sir,

I have the honour to refer to your Memorandum No.D.1815-R/29, dated the 20th September, 1929, and to say that the extract from the Pioneer seems to be based on a communique to the local Correspondents of certain newspapers (a copy of which is attached) making public the sanction given in your Memorandum No.D.2045-29, dated the 7th August, 1929, and paragraphs 22, 24, 26, 27 and 30 of the 'Report of the Bangalore Water Supply Committee on the Thippagondanahalli Reservoir Project' (a copy of which was sent to you with my letter No.11780, dated the 22nd November, 1927), of which the Pioneer seems to have made an inaccurate résumé.

I have, etc.,

RESIDENT.

16/10/29

S. 5.

MGIPC—SP—437DCF—S&P—(G-1478)—29-1-27—15,000 Pads.

H. O.
14 1,000—27—7—1929.

90

10. Gl. 22/28

CIVIL AND MILITARY STATION, BANGALORE.
MUNICIPAL OFFICE.

DATED 22nd October 1929.

From

G. H. COOKE ESQ., M. C., I. C. S.,
President, Municipal Commission,
C. & M. Station, BANGALORE.

10292
To 23/10/29
413/28

The Secretary to the Hon'ble the Resident in Mysore,
Bangalore.

SIR,

Subject:- Bangalore Water Supply - Thippagondanhalli Scheme.

S.86.87 (C)

With reference to your letter No. 8588/413-1928 dated the 10th October 1929 on the above subject, I have the honour to state that the matter is under consideration and will be placed before the Commission at their meeting next month, when their views will be communicated to you.

I have the honour to be,
Sir,
Your most obedient servant,

President, M. C.

MVL.
22/10/29

3. It will be observed that the cost was calculated assuming that the Military would pay one-third of the total cost. The Commission's consideration of the proposals involved in the new scheme has always been governed by this factor. The suggestion now made that the Military contribution should be in proportion to their actual consumption is entirely new and is contrary to the terms of the note forwarded with Major Evans Gordon's letter No.3033/45-1899 dated the 26th March 1928, on which the Commission's deliberations proceeded. It was definitely stated therein that the Army Department of the Government of India had agreed to bear one-third of the cost of water under the new scheme. Should that arrangement now be revised the financial aspect of the scheme would be rendered much more serious as far as the Commission is concerned. The additional cost to the Commission would then be Rs.2,07,313/- instead of 1¼ lakhs, assuming the Military consumption to be about 1/10th of 2 million gallons and their contribution proportional. It was pointed out in my letter dated the 13th February 1929 that even the additional expenditure of Rs.1,25,000/- involved was beyond the capacity of the Commission, and that their acceptance of the scheme was conditional on the Government of India coming to the rescue with an adequate contribution. If the Military contribution is to be reduced, the only alternative will be for the Commission to request the Government of India to make an enhanced grant.

4. I may be allowed to point out that the statement in para 5 of your letter that the actual cost of water on the basis of 24-25 figures to the Municipality was 4.52 annas per 1,000 gallons while a charge of 8 annas is being levied is not correct. A glance at the figures in the Administration Report for 24-25, will show

that

H.O.
14 1,000—27—7—1929.

CIVIL AND MILITARY STATION, BANGALORE.
MUNICIPAL OFFICE.

DATED 30th November 1929.

From G.H. COOKE ESQ., M.C., I.C.S.,
President, Municipal Commission,
C. & M. Station, BANGALORE.

To
The Secretary to the Hon'ble the Resident in Mysore,
Bangalore.

SIR,

I have the honour to refer to your letter No.7229/413/28 dated the 24th August 1929 forwarding for consideration of the Commission the views of the Government of India on the new Water Supply scheme.

2. The Government of India require detailed information with regard to the statement that an additional expenditure of a lakh and a quarter rupees would have to be incurred by the Municipal Commission on account of the new scheme. This figure was arrived at, as shown in the margin, by deducting the normal average expenditure on water (the figures for 23-24 and 24-25 being taken for the purpose of calculation) viz. Rs.1,31,814/- from the total cost of water including distribution under the new scheme, estimated to be Rs.2,57,688/- on the assumption that 2 million gallons of water will be taken by the whole Station.

Expenditure for 1923-24	Rs.1,16,058- 4-0
" 1924-25	" 1,47,571- 6-0
Total for 2 years.	Rs.2,63,629-10-0
Average for one year.	" 1,31,814- 0-0
Cost per annum of 2 million gallons of water per day at 7.65 annas per 1,000 gallons.	" 3,49,031- 0-0
Commission's share 2/3rds of 3,49,031/-	" 2,32,688- 0-0
Add cost of distribution.	" 25,000- 0-0
Total.	Rs.2,57,688- 0-0
Deduct average cost.	" 1,31,814- 0-0
Excess	Rs.1,25,874- 0-0

P.T.O.

that the actual charge per 1,000 gallons came to 6.92 annas as detailed below:-

No. of gallons delivered to High Ground Reservoir.	584,786,000 gallons.
2/3rds of the above being the estimated portion supplied to the Civil and Military Station Municipality.	2/3 x 584,786,000 = 389,857,733 gallons.
The demand under water tax.	Rs.1,50,588/-
Excess water charges.	" 18,012/-
Total.	Rs.1,68,600/-

The charge for 1,000 gallons was therefore 6.92 annas.

Coming to the year 1928-29, the cost of 1,000 gallons calculated on the same principle was 6.99 annas. It is hardly correct to state that a charge of 8 annas per 1,000 gallons is being levied by the Municipality. Water tax is 6 % of the annual value of buildings, while the rate of 8 annas per 1,000 gallons is charged only in cases where water is used for trade purposes. The income thus derived is insignificant.

5. The assumption that the Municipal Commission are now making a profit over the existing water supply scheme is not based on facts. Appended is a statement showing the income and expenditure on account of water for the last 21 years from which it will be seen that the Commission has had to supplement the water tax etc. receipts by appropriating Rs.3,73,337/- from the ordinary revenues.

6. The Commission find it difficult to appreciate a comparison of the cost of water in the Civil and Military Station with the cost in other Cities and Cantonments where conditions may be quite different. They are naturally more

P.T.O.

inclined to make a comparison with the conditions prevailing in the contiguous city of Bangalore which receives its supply of water from the same source and under the same conditions. The rate of water tax levied by the City Municipality has been only 4¾ per cent of the annual value of buildings for years past compared with the 6% in the Civil and Military Station.

7. I request that the above views of the Commission may be communicated to the Government of India. A copy of the Municipal Commission's resolution No.6 dated the 29th November 1929 on the subject is enclosed for information.

I have the honour to be,
Sir,
Your most obedient servant,

MVL.
30/11/29.

91/a.

Statement showing the receipts and expenditure under Water Supply during the period from 1908-09 to 1928-29.

	Receipts.	Expenditure.	
		Ordinary.	Capital.
	Rs.	Rs.	Rs.
1908-09 ..	60,124/-	57,740/-	1,331/-
1909-10 ..	62,394/-	60,265/-	365/-
1910-11 ..	67,670/-	69,005/-	615/-
1911-12 ..	70,992/-	79,386/-	100/-
1912-13 ..	71,203/-	76,443/-	25,372/-
1913-14 ..	76,198/-	75,622/-	2,191/-
1914-15 ..	83,481/-	81,238/-	8,021/-
1915-16 ..	88,204/-	80,090/-	4,378/-
1916-17 ..	82,522/-	83,044/-	7,075/-
1917-18 ..	89,572/-	92,624/-	265/-
1918-19 ..	89,267/-	1,06,893/-	2,337/-
1919-20 ..	1,04,659/-	1,21,630/-	8,263/-
1920-21 ..	1,14,019/-	1,28,910/-	7,088/-
1921-22 ..	1,14,346/-	1,67,840/-	16,049/-
1922-23 ..	1,10,775/-	1,51,543/-	14,888/-
1923-24 ..	1,20,979/-	1,16,058/-	55,860/-
1924-25 ..	1,04,599/-	1,47,572/-	6,305/-
1925-26 ..	1,97,242/-	1,35,547/-	7,818/-
1926-27 ..	1,89,535/-	2,20,465/-	2,346/-
1927-28 ..	1,64,125/-	2,13,600/-	5,304/-
1928-29 ..	1,79,721/-	1,68,265/-	5,213/-
Total.	Rs.22,41,627/-	Rs.24,33,780/-	Rs.1,81,184/-

Rs.26,14,964/-

- " 22,41,627/-

Rs. 3,73,337/-

MVL.

Municipal Commission's resolution dated the 29th November 1929. (Ordinary meeting).

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6. Letter No.7229/413/1928 dated the 24th August 1929 from the Secretary to the Resident and letter No.1838-M/52 dated the 12th September 1929 from the Commanding Royal Engineer, Madras District, regarding Bangalore Water Supply - Thippagondanahalli Scheme.

The Standing Committee recommend that the following state should be communicated to the Hon'ble the Resident in reply to the Secretary to the Resident's letter No.7229/413/1928 dated the 24th August 1929:-

The figure of a lakh and a quarter rupees stated to be the additional expenditure to be incurred by the Commission on accou of the new scheme, was arrived at by deducting the normal average expenditure on water (the figures for 23-24 and 24-25 being taken for the purpose of calculation) viz. Rs.1,31,814/- from the total cost of water, including distribution, under the new scheme, estimated to be Rs.2,57,688/- on the assumption that 2 million gallons of water will be taken by the whole Station.

The cost was calculated assuming that the Military would pay 1/3rd of the total cost; the Commission's consideration of the proposals involved in the new scheme has always been governed by this factor, and the suggestion now made that the Military contribution should be in proportion to their actual consumption is entirely new and is contrary to the terms of the note forwarded with Major Evans Gordon's letter No.3033/45-1899 dated the 26th March 1928 on which the Commission's deliberations proceeded. Should that arrangement now be revised, the financial aspect of the scheme would be rendered much more serious as far as the Commission is concerned, the additional cost to the Commission then being Rs.2,07,313/- instead of 1¼ lakhs, assuming the

P.T.O.

Military consumption to be about 1/10th of 2 million gallons and their contribution proportional. In their resolution No.2 dated the 31st January 1929 the Commission pointed out that even the additional expenditure of 1¼ lakhs was beyond their capacity and stated that their acceptance of the new scheme was conditional on the Government of India coming to the rescue with an adequate [illegible]ntribution. If the Military contribution is to be reduced, [illegible]e only alternative will be for the Commission to request the Government of India to make an enhanced grant.

A perusal of the figures in the Administration Report for 24-25 will show that the actual cost of 1,000 gallons came to 6.92 annas, and that the cost of 1,000 gallons during 28-29 calculated on the same principle was 6.99 annas. Water tax is levied at 6 % of the annual value of buildings, while the rate of 8 annas for 1,000 gallons is charged only in cases where water is used for trade purposes, the income thus derived being insignificant.

The assumption that the Municipal Commission are now making a profit from the existing water supply scheme is not based on facts as may be seen from the statement of income and expenditure on account of water for the last 21 years, the Commission having had to supplement the water tax receipts by appropriating 3,73,337/- from the ordinary revenues during that period.

The Commission find it difficult to appreciate a comparison of the cost of water in the Civil and Military Station with that in other cities and cantonments where conditions may be quite different; they are naturally inclined to make a comparison with the conditions prevailing in the contiguous city of Bangalore which receives its supply of water from the same source and under

the.

the same conditions. The rate of water tax levied by the City Municipality has been only 4½ % of the annual value of buildin for years past compared with the 6 % in the Civil and Military Station.

Resolved that the above recommendation of the Standing Committee be accepted.

(Sd). G. H. Cooke,

President, M. C.

' Copy. '

MVL.

P. Jamarthan

No. 3242
413-1928.

From

Major G. Loch,
Secretary to the Resident in Mysore.

To

The President,
Municipal Commission,
Civil and Military Station,
B a n g a l o r e.

Bangalore, the 16th April, 19[illegible]

Bangalore Water Supply.

Sir,

I am directed to refer to your letter No.Gt.22/28, dat[illegible] the 30th November, 1929, and to observe that the receipts fo[illegible] the year 1924-25 given in the statement forwarded with it do [illegible] agree with the figures given on pages 24 and 25 of the Municip[illegible] Administration Reports for 1924-25. I am to request that the figures may kindly be reconciled and a revised statement submitted to this office if necessary.

2. I am to point out that the statement that the Municipal Commission's acceptance of the scheme was conditiona[illegible] on the Government of India sanctioning a special contribution is not correct; there can be no such condition, as has alread[illegible] been pointed out in my letter No.3426/413-1928, dated the 18th April, 1929.

S.N.70 (₹)

I have the honour to be,
Sir,
Your most obedient servant,

Major,
Secretary to the Resident.

9/4/29

SB
/4.

No. 3243 Encs. 4
413-1928.

From

The Hon'ble Mr. S. E. Pears, C.S.I., C.I.E.,
Resident in Mysore.

To

The Political Secretary to the Government of Ind.
Foreign and Political Department.

Bangalore, the 16th April,

Bangalore Water-supply.

Sir,

S.N-78

I have the honour to refer to your letter No.D.2045-A 29, dated the 7th August, 1929, and to forward a copy of a let No. Gt.22/28, dated the 30th November, 1929, with enclosures, from the President, Municipal Commission, Civil and Military Station, Bangalore, on the above subject. The contents of the letter requires examination and any comments that seem necessary will be communicated to you in due course.

S.N-91.

2. A copy of Major Evans-Gordon's letter No.3033, dated the 26th March, 1928, and of the note to which he refers is also enclosed.

S.N-28.

I have the honour to be,
Sir,
Your most obedient servant,

Major,
for RESIDENT.

9/4/30

ASB
5/4.

No. PW 3056 11625

Encls: 1. Copy of G.O.

94

PUBLIC WORKS SECRETARIAT.

Dated Bangalore, 25 March 1930

FROM

Rajasevasakta
J. BHORE, ESQ., A.M.I.C.E. ETC.,
Secretary to Government,
Public Works Department,
Bangalore.

341
27/3
413
28

To

The Secretary to the Hon'ble the Resident in Mysore,
Bangalore.

Subject:- Bangalore Water Supply New Scheme.

SIR,

I am directed to forward herewith a copy of the Government Order No.P.W.2955-66/11256-67 dated the 15th March 1930 sanctioning the New Scheme for water supply to Bangalore and to inform you that the work has been started.

I have the honour to be,

Sir,

Your most obedient servant,

J Bhore
25.3.30

Secretary to Government,

P. W. Department.

Government of his highness the Maharaja of Mysore.

PUBLIC WORKS DEPARTMENT.

G. O. No. P. W. 2955-66—11256-67, dated 15th March 1930.

Bangalore New Water Supply Scheme.

READ—

Government Order No. 159-66—1062-9, dated the 22nd February 1898, sanctioning the final estimate amounting to Rs. 19,50,831 for the complete system of supply and distribution including the construction of the Chamarajendra Reservoir.

2. Agreement dated 17th February 1897, between the Secretary of State for India and His Highness the Maharaja of Mysore, regarding the supply of water from Chamarajendra Reservoir to the Civil and Military Station, Bangalore.

3. Agreement between the Secretary of State for India and His Highness the Maharaja of Mysore, dated the 17th January 1913, regarding the installation and operation of Jewell Gravity Filter Plant.

4. Agreement dated the 30th October 1926, revising the above Agreement.

5. Government Order No. M. 3240, dated the 11th March 1926, sanctioning an estimate amounting to Rs. 3,06,555 for raising the weir of the Chamarajendra Reservoir from R. L. 65 to 70 by installing automatic gates, etc., and estimate amounting to Rs. 4,17,000 for providing a Monier pipe duct.

6. Government Order No. P. W. 4001-5, dated the 8th May 1926, constituting a Committee to report on the Bangalore Water Supply.

7. Interim report of the Bangalore Water Supply Committee published for general information on 1st July 1927.

8. The final report of the Committee received from the Secretary, Water Supply Committee, with his letter No. 445, dated 16th May 1929.

9. Public Works Secretary's Note No. D. 187, dated the 5th August 1929.

ORDER No. P. W. 2955-66—11256-67, DATED 15TH MARCH 1930.

The present source of water supply to Bangalore City and the Civil and Military Station is the Chamarajendra Reservoir which was completed in the year 1897, at a cost of Rs. 19,50,831 including the cost of distribution. Water was delivered to the City and the Civil and Military Station for the first time on 7th August 1896.

2. The Chamarajendra Reservoir was designed to give a sufficient supply for a population of 200,000 at 10 gallons per head per day. It was assumed at the time that this source would adequately meet the requirements of the City and the Civil and Military Station for a period of 20 years. The population of Bangalore as per Census of 1921 was 237,000.

3. The conditions under which water is supplied from this source to the Civil and Military Station are embodied in an Agreement dated the 17th February 1897. In accordance with para 8 of this Agreement, one million gallons per day was held to be sufficient supply for 7 years from the date of the 1897 agreement; the quantity of such supply being determined once in 10 years thereafter. For the decade 1904-14, 1½ million gallons per day each, for the City and the Civil and Military Station was fixed to be the sufficient quantity. For the decade 1914-24, the quantity fixed was 1¾ million gallons per day for each. The quantity considered sufficient for the decade 1924-34 has not been fixed and the same limit as was fixed for 1914-24 is being continued.

4. At the time the works were designed in 1892, the population of Bangalore was 180,366. The population as per Census of 1901, was 159,000. In 1911 it was 189,000 and in 1921 it was 237,496 (City 118,556 and Civil and Military Station

118,940). The consumption of water per head per day was assumed on the average at 10 gallons per head. Experience has shown that this is too low, and it has gradually worked up to 13 gallons per head. On account of the increase both in population and consumption, scarcity of water has been felt in Bangalore on a number of occasions since 1907. Since then various proposals have been made from time to time to improve the supply; the most important of which was increasing the storage by raising the weir of the Hessarghatta Tank from 3 to 5 feet. Underground source of supply from bore-holes were examined with a view to supplementing the supply from the Lake.

5. In 1924, the Civil and Military Station Authorities obtained a report from Mr. C. T. Mullings of the Madras Public Works Department about the possibilities of improving the supply. He recommended that the weirs of the lake may be raised by 8 feet, and estimated that by so doing Bangalore would be able to get a maximum supply of 6 million gallons per day, for 2 consecutive years with a minimum rain-fall.

6. The Government of Mysore accepted the proposal with certain modifications agreeing to raise the weir by only 5 feet. Estimates for raising the weirs and for laying a separate duct to have a carrying capacity of 6 million gallons per day amounting to Rs. 3,06,555 and Rs. 4,17,000 respectively, were sanctioned in May 1926.

7. When arrangements were made to put the work in hand in accordance with the above estimates, it was found that the receipts into the Lake which were poor during the years 1923-24 had dwindled down to practically nothing in 1925. Arrangements were then made for augmenting the supply available in the Hessarghatta Tank by breaching some higher tanks in the valley and letting water into this tank. The expectations of better receipts in subsequent years based upon the experience of past years were not realised and therefore a temporary scheme of obtaining water supply from the Yelemallappa Chetty Tank was taken up in the early part of 1926. The water supply of Bangalore depended entirely at the time on this new source of supply, the Chamarajendra Reservoir having almost completely gone dry by May 1926.

8. In these circumstances, it was considered that there was no practical use in carrying out the scheme that had been sanctioned to raise the weirs of the Hessarghatta Lake. Government accordingly constituted a Committee in their Order No. 4001-5, dated 8th May 1926, with Sir M. Visvesvaraya as Chairman, and the marginally noted gentlemen as Members of the Committee to advise the Government as regards the measures to be adopted for the permanent improvement of the water supply of Bangalore.

1. Mr. V. Rangaswamy Iyengar.
2. ,, J. Bhore.
3. ,, K. R. Seshachar.
4. ,, S. G. Forbes.
5. ,, H. R. Venkatasubba Rao.

9. The Committee met a number of times and submitted their final report offering their definite recommendations in regard to this matter in May 1929.

10. *Source of Supply.*—In the interim report of the Committee submitted in May 1927, all possible sources of supply that were examined by the Committee have been indicated. All the valleys round about Bangalore, such as the North Pinakini, the Arkavati and even the Cauvery and the Hemavati as possible sources of supply were taken up for investigation, to select a reliable and economical source of supply. The question of improving Hessarghatta Lake and supplementing it with another storage reservoir lower down in the same valley, was also examined. After considering all these schemes, the Committee finally recommended that a Reservoir be constructed across the Arkavati River at Thippagondanahalli near the 20th mile of the Bangalore-Magadi road just below its confluence with the Kumudwati River for reasons mentioned in the above report. They consider that this scheme would provide a daily supply of 6 million gallons for a population of 300,000 immediately, and will be capable of supplying 9 to 10 million gallons per day later on, or at the same rate of consumption per head, *viz.*, 20 gallons per day, for a population of 4,50,000. The catchment area is 532 Sq. Miles, of which the unintercepted area is 103 Sq. Miles. According to the working tables enclosed with the report, the Reservoir at the final stage will, with the lowest minimum rainfall, be able to supply water at the maximum draw for 5 years and 10 months and without replenishment for 3 years and 6 months respectively. The annual requirements of Bangalore are found to be 1,072 M. C. Ft. From rough

gaugings it is found that 2,561 and 3,576 M. C. Ft. of water flowed down the river during 1927 and 1928 against the receipts of 369 and 505 M. C. Ft. respectively, into the Hessarghatta Lake.

11. The supply in the stream is thus found to be ample for the maximum demand. Government approve of the recommendation to construct a reservoir across the Arkavati River at Thippagondanahalli.

12. *The Dam.*—The Committee consider it desirable to proceed with the work of the Dam in two stages, the first stage to provide for a storage to supply 6 million gallons per day, and the second and final stage to provide 9 to 10 million gallons per day. They accordingly propose that the dam may be built to a height so as to impound 1,471 M.C.Ft. This will ensure the supply of 6 million gallons per day as against the present supply of 3½ million gallons. The storage in the reservoir if once full, is expected to last for 6 years and 10 months with the minimum rainfall, and 2 years and 5 months without any replenishment. The Committee recommend that the dam may be built to the full section for the final stage and kept at the lower level to hold the above storage. Mr. Forbes suggested that the dam may be built once for all with a much smaller section to hold only 1,824 M.C.Ft. against the ultimate storage of 3,034 M.C.Ft. to supply 9 million gallons per day. The total quantity of water supply required ultimately including the incidental losses by absorption and evaporation is 1,072 M.C.Ft. per annum, and for a water supply scheme of such an important and growing City like Bangalore, the source must be capable of supplying water for at least 3 successive poor years with little or no replenishment. For this reason the capacity of the reservoir will have to be sufficient to store the required quantity of water for this period. The storage proposed by Mr. Forbes would not meet such a demand. Further, the Arkavati valley has proved very disappointing during the last 7 or 8 years and no risks should be taken in this matter. Government accordingly agree with the Committee that the dam should be capable of being raised so as to hold ultimately a storage of 3,038 M.C.Ft. and direct that the dam may be built to the full section up to the river bed level and above this with a suitable section to hold 1,471 M.C.Ft.

13. *Filters.*—In accordance with the Agreement in force with the Civil and Military Station authorities, the maintenance expenditure at the Combined Jewell Filters is met in equal proportions, or in accordance with the quantities of filtered water drawn from the filters.

The present arrangement for filtration is not according to modern practice in as much as the unfiltered water is drawn through the mains from the two pumping Stations which are run independently by the City and the Civil and Military Station, and additional pumping from the pure water tanks at the filters has to be resorted to to supply the required quantity to the different service reservoirs. Further, a large quantity of water pumped is used for washing the filters every day. The present rate of filtration works out to 1·1 anna for 1,000 gallons. If the filters are installed at the pumping Station, and filtered water pumped through the main to the service reservoirs, the cost of filtration is expected to work out to ·65 anna for a consumption of 4 million gallons and 0·58 of an anna, assuming consumption of 5 million gallons per day, and further, the deterioration of the main on account of pumping raw water will be greatly minimised. The committee therefore recommend that Rapid Mechanical Filters may be installed at the Pumping Station at a cost of 3·58 lakhs.

Government accept the recommendation of the Committee.

14. *Motors and Pumps.*—The Committee's recommendation to have three units; each of the capacity of 3½ million gallons per day is approved.

15. *The Rising Main.*—After consideration of the discharge required and comparative cost of water for different diameters the Committee have resolved that a 27″ main should be used.

16. Taking into consideration the manufacture of cast-iron pipes at the Mysore Iron Works, Bhadravati, the Committee have submitted a number of alternative estimates for the Rising Main limiting the length of cast-iron main to stand a pressure of

00, 500 and 600 ft. respectively, as also for providing an all-steel main. These estimates provide for:—

1. 10 miles of Cast Iron and 7 miles of Steel
2. 13 do 4 do
3. 15 do 2 do
4. 17 miles of Steel.

17. With a view to reducing the capital cost, Government are of opinion that it is enough if the pumping equipment and the rising main are of sufficient capacity to meet the present and immediate future requirements. They direct that it will do if provision for six million gallons per day is made and accordingly approve of pumping units of 3½ million gallon capacity and a rising main of 24″ diameter.

18. The whole scheme except the dam was referred to technical experts in London and they generally approve of the proposals made by the Committee. In regard to the limits of use of cast iron pipes manufactured at Bhadravati, they are of opinion that though the British Standard Specification prescribe a limit of maximum head of 400 feet, for ordinary cast iron pipe made of coke pig, the pipes of the Mysore Iron Works may be used up to a head of 500 feet in view of the better tests obtained of charcoal pig iron. But they also say that " to attain large pipes uniformly to this standard of strength will in our view call for particularly efficient and constant supervision at the foundry ".

19. In accordance with the above opinion cast iron pipes can be used up to 13 miles.

TOTAL COST OF THE SCHEME.

20. In accordance with the above, the total cost of the scheme works out to Rs. 50·33 lakhs as per details given below:—

	Rs.
(1) Dam and allied works ..	18 lakhs
(2) Pipe Line	22·25 „
(3) Filters	3·58 „
(4) Motors and Pumps ..	1·25 „
(5) Buildings	1·25 „
Total ..	46·33 „
Add interest during construction ..	4·00 „
Total ..	50·33 „

THE WORKING EXPENSES.

21. For a consumption of four million gallons a day which is not likely to be exceeded for the next five years the working expenses amount to seven lakhs as per details noted below:—

	Rs.
(1) Interest at 5½ per cent ..	2,77,000
(2) Depreciation	14,000
(3) Repairs and renewals ..	38,000
(4) Power charges	2,80,000
(5) Filtration	41,000
(6) Maintenance	50,000
Total ..	7,00,000

22. The rate for filtered water proposed to be levied for the City and the Civil and Military Station is 7·65 annas per 1,000 gallons for a guaranteed minimum consumption of two million gallons each. The total receipts on this account will be Rs. 6,98,000.

23. Government are pleased to sanction the detailed estimates amounting to Rs. 50·33 lakhs and direct that the arrangements be made to start the work at once.

24. A supplemental demand for Rs. 5 lakhs required for expenditure during the current year may be placed before the next Meeting of the Legislative Council. The work may be spread over four years at the maximum, suitable grants being made for completing the principal works in 24 calendar months from the date of starting.

NO. P. W. 2955-66—11256-67, DATED 15TH MARCH 1930.

25. Government are pleased to record their high appreciation of the thoroughness [redacted]th which the question has been dealt with in all its aspects by the Committee. [redacted]y are pleased to convey their best thanks to Sir M. Visvesvaraya, the Chairman [redacted]e Committee, who very kindly agreed to guide the proceedings of the Committee [redacted] its stages from the preparation of the estimates for the various works to the [redacted] of the final recommendations, and to the Members of the Committee.

J. BHORE,
Secretary to Government,
Public Works Department.

To—Sir M. Visvesvaraya, K.C.I.E.
V. Rangaswamy Iyengar, Esq., B.C.E.
Rajasevasakta J. Bhore, Esq., A.M.I.C.E.
Rajasevasakta K. R. Seshachar, Esq., B.A.,B.E.
S. G. Forbes, Esq., B.SC., etc.
H. R. Venkatasubba Rao, Esq., B.A., L.C.E.
The Comptroller to the Government of Mysore, through the Financial Secretary to Government (with file and two spare copies).
The Chief Electrical Engineer to the Government of Mysore.
The Chief Secretary to Government.
The General Secretary to Government.
The Executive Engineer, Bangalore Water Supply New Scheme.
The Executive Engineer, Water Supply Division.
The General Manager, Mysore Iron Works, Bhadravati.

EXD.—P. S. R. N.

WD—2847—GPB—825—5-4-30

[redacted] 45/ 12/4

PUBLIC WORKS SECRETARIAT.

Encls: 12778
2 Pos.

Dated Bangalore, 19th April 1930.

FROM

J. BHORE, Esq., A.M.I.C.E. Etc.,
Secretary to Government,
Public Works Department,
Bangalore.

RESIDENT'S OFFICE,
BANGALORE.
Register No. 435
Date of Receipt 21.4.30
File No. 413

To

The Secretary to the Hon'ble the Resident in Mysore,
Bangalore.

Bangalore Water Supply.

SIR,

I am directed to forward herewith, for the information of the Hon'ble the Resident, two printed copies of G.O.No.P.W. 2955-66/11256-67 dated the 15th March 1930, sanctioning the New Water Supply Scheme for Bangalore.

I have the honour to be,

Sir,

Your most obedient servant,

J. Bhore 19.4.30

Secretary to Government,
Public Works Department.

T.R.S.

Proceedings of the Government of His Highness

the Maharaja of Mysore.

Public Works Department.

R e a d:-

Government Order No.159-66/1062-9 dated the 22nd F 1898, sanctioning the final estimate amounting to Rs.19,50 for the complete system of supply and distribution includi the construction of the Chamarajendra Reservoir.

2. Agreement dated 17th February 1897, between the - - Secretary of State for India and His Highness the Maharaja Mysore, regarding the supply of water from Chamarajendra - Reservoir to the Civil and Military Station, Bangalore.

3. Agreement between the Secretary of State for India and His Highness the Maharaja of Mysore, dated the 17th January 1913, regarding the installation and operation of Jewell - - Gravity Filter Plant.

4. Agreement dated the 30th October 1926, revising the -- above Agreement.

5. Government Order No.M.3240 dated the 11th March 1926, sanctioning an estimate amounting to Rs.3,06,555 for raising the weir of the Chamarajendra Reservoir from R.L.65 to 70 by installing automatic gates, etc., and estimate amounting to Rs.4,17,000 for providing a Monier pipe duct.

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was assumed on the average at 10 gallons per head. Experience has shown that this is too low, and it has gradually worked up to 13 gallons per head. On account of the increase both in population and consumption, scarcity of water has been felt in Bangalore on a number of occasions since 1918. Since then various proposals have been made from time to time to improve the supply; the most important of which was that of increasing the storage by raising the weir of the Hessaraghatta Tank from 3 to 5 feet. Underground sources of supply from bore holes were examined with a view to supplementing the supply from the Lake.

5. In 1924, the Civil and Military Station Authorities obtained a report from Mr. C.T. Mullings of the Madras Public Works Department about the possibilities of improving the supply. He recommended that the weirs of the lake may be raised by feet, and estimated that by so doing Bangalore would be able to get a maximum supply of 6 million gallons per day, for 2 consecutive years with a minimum rainfall.

6. The Government of Mysore accepted the proposal with certain modifications agreeing to raise the weir by only 5 feet. Estimates for raising the weirs and for laying a separate duct to have a carrying capacity of 6 million gallons per day amounting to Rs.3,06,555 and Rs.4,17,000 respectively were sanctioned in May 1926.

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3. " K.R.Seshachar.
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12. The Dam.- The Committee consider it desirable t proceed with the work of the Dam in two stages, the f stage to provide for a storage to supply 6 million ga per day, and the second and final stage to provide 9 million gallons per day. They accordingly propose t Dam may be built to a height so as to impound 1471 M.C. This will ensure the supply of 6 million gallons per da against the present supply of 3½ million gallons. The storage in the reservoir if once full, is expected to la for 6 years and 10 months with the minimum rainfall, and 2 years and 5 months without any replenishment. The - - Committee recommend that the dam may be built to the full - section for the final stage and kept at the lower level to hold the above storage. Mr.Forbes suggested that the dam may be built once for all with a much smaller section to -- hold only 1824 M.C.Ft. against the ultimate storage of 3034 M.C.Ft. to supply 9 million gallons per day. The total - quantity of water supply required ultimately including the incidental losses by absorption and evaporation is 1072 M.C Ft. per annum, and for a water supply scheme of such an ---- important and growing City like Bangalore, the source must be capable of supplying water for at least 3 successive po years with little or no replenishment. For this reason t capacity of the reservoir will have to be sufficient to sto the required quantity of water for this period. The stora proposed by Mr.Forbes would not meet such a demand. Furth r the Arkavati Valley has proved very disappointing during th last 7 or 8 years and no risks should be taken in this -

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